



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,782	06/09/2006	Shoichi Higuchi	053383	7415
38834	7590	03/24/2009	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP			MULLIS, JEFFREY C	
1250 CONNECTICUT AVENUE, NW				
SUITE 700			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20036			1796	
			MAIL DATE	DELIVERY MODE
			03/24/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/560,782	HIGUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeffrey C. Mullis	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 February 2008.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2-11-08; 2-28-06; 12-14-5</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

Art Unit: 1796

Claims 3 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A polymer with polymeric side chains is generally viewed in the art as a graft copolymer, not a block copolymer and it is therefore unclear what is being claimed in claim 2.

Claim 15 is unclear in that the composition of claim 15 from which claim 1 depends already recites that "A" is present.

Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 15 only recites a composition with component "A" of claim 1 and therefore does not further limit claim 1.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nobuaki et al. (EP 759 459).

Patentees disclose a composition containing a thermoplastic resin "A" having a refractive index of 1.52-1.61 as in applicants resin "B" and a polyetherester "B" wherein the difference between the resin "A" and "B" is less than 0.04. Note the production of patentees resin "B" with RI of 1.577 in referential example 1 on page 15 with polyethylene glycol hydrophilic blocks of 2,000 molecular weight and polyhexamethylene naphthylate aromatic lipophilic blocks. Note Table 1 on page 18 where the resin "A" is polystyrene or polycarbonate as in instant claim 4. Note use of an alkylene oxide adduct of a dihydric phenol in structure "2" on page 5. Note monomers with side chains in structure "7" on page 11 such as would result in block copolymers with side chains as in instant claim 2. . With regard to instant claim 17, as set out in MPEP 2112.01 section III—

Where the only difference between a prior art product and a claimed product is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. *In re Ngai*, \*\*>367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004)< (Claim at issue was a kit requiring instructions and a buffer agent. The Federal Circuit held that the claim was anticipated by a prior art reference that taught a kit that included instructions and a buffer agent, even though the content of the instructions differed.). See also *In re Gulack*, 703 F.2d 1381, 1385-86, 217 USPQ 401, 404 (Fed. Cir. 1983)(“Where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability .... [T ]he critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate.”).

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 6,020,426) in view of any one of Miyamoto et al. (US 6,395,829) or Doak (US 4469845) or Ohnaga (US 6143826) and further optionally in view of Hirabayashi et al. (US 6,212,346).

The primary reference discloses a composition containing a block copolymer with a charge transporting block and an insulating block (abstract) in which the insulating block may have applicants lipophilic block volume resistivity (column 45, lines 49-55). A charge transporting polymer or insulating polymer may be added to the block copolymer which are compatible with the charge transporting or insulating blocks respectively and as a polymer is miscible with itself, those of ordinary skill would be motivated to add the polymer identical or similar to the corresponding block. The charge transporting block may have ester or ether repeating units such as are hydrophilic in column 11. The composition is disclosed to be preferably transparent at column 124, lines 35-44.

The primary reference does not disclose the volume resistivity of the charge transporting block although given that both applicants and patentees blocks are

Art Unit: 1796

hydrophilic, identical resistivities of applicants and patentees blocks would appear to be inherent. The primary reference does not disclose that refractive indices of their components should be matched.

The secondary reference Hirabayashi et al. discloses that the volume resistivity of a charge transporting layer may be as low as 1 billion at column 12, lines 1-33.

Ohnaga (column 11, lines 46-55), Miyamoto (patent claim 1) and Doak (column 9, lines 13-17) all disclose that transparency may be conferred by matching the refractive indices of the components and in which the components include block copolymers.

It would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to match the refractive indices of the block copolymer of the primary reference as taught by any one of Miyamoto et al. (US 6,395,829) or Doak (US 4469845) or Ohnaga (US 6143826) motivated to obtain a transparent composition as desired by the primary reference absent any showing of surprising or unexpected results.

To use charge transporting blocks with applicants hydrophilic block resistivities would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention since Hirabayashi et al. disclose appropriate resistivities for a charge transporting block and since the primary reference desires the use of a charge transporting block absent any showing of surprising or unexpected results.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently

Art Unit: 1796

possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis m-f, 9-5PM at telephone number 571 272 1075.

JCM  
3-21-09

/Jeffrey C. Mullis/  
Primary Examiner, Art Unit 1796

Jeffrey C. Mullis  
Primary Examiner  
Art Unit 1796